

REMARKS

Claims 2-8, 10-18, and 20-25 remain pending in this patent application. Claims 1, 9, and 19 have been cancelled herein and claims 2-8, 10-18, and 20-25 have been amended herein. No new matter is added as a result of the Claim amendments. Applicants respectfully requests further examination and reconsideration in view of the remarks set forth below.

CLAIM REJECTIONS

35 U.S.C. §103 Rejections

Claims 1-25 are rejected under 35 U.S.C. §103(a), as being anticipated by Cooreman U.S. Patent No. 3,613,066 in view of D'Aligny et al. U.S. Publication No. 2002/1043506 (hereinafter D'Aligny). These rejections are respectfully traversed for the following rationale.

Rejections to Claims 1, 9, and 19 are moot as these claims have been cancelled.

The Examiner is respectfully directed to independent Claim 5, which (as amended) recites that an embodiment of the present invention is directed to an optical position-tracking system comprising:

a first light beam steering device for sweeping a first light beam through a first angular range to cause a reflection of said first light beam by a target back to said first light beam steering device to be reflected towards a first direction facilitating determination of a position of said target, wherein said first direction is substantially parallel to a first light direction from which said first light beam is received at said first light beam steering device;

a second light beam steering device for sweeping a second light beam through a second angular range to cause a reflection of said second light beam by said target back to said second light beam steering device to be reflected towards a second direction facilitating determination of said position of said target, wherein said second direction is substantially parallel to a second light direction from which said second light beam is

received at said second light beam steering device, wherein said position of said target is determined using a triangulation technique utilizing a first angular value of said first light beam and a second angular value of said second light beam, and wherein said first angular value and said second angular value depend on the existence of said respective reflection; and wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam.

Independent Claims 15 and 22 recite limitations similar to those of independent Claim 5. Claims 2-4 and 6-8 depend from independent Claim 5 and recite further limitations of the claimed invention. Claims 10-14 and 16-18 depend from independent Claim 15 and recite further limitations of the claimed invention. Claims 20-21 and 23-25 depend from independent Claim 22 and recite further limitations of the claimed invention.

The Applicants submit that Cooreman does not teach or suggest, either expressly or inherently, the limitation of, “wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam,” as is recited in Claim 5. Cooreman is silent regarding this limitation. Cooreman instead teaches that mirrors 6 and 7 (beam steering devices) are driven in permanent rotation or uniform oscillatory motion to scan panel 1 with two separate crossing beams (col. 2 lines 40-46 of Cooreman). Thus, the beam steering devices of Cooreman each permanently steer a beam on set path. This precludes altering or reducing the set path for one of the beams so that it sweeps through a limited angular range. This is very different from the beam steering devices of embodiments of the present invention, “wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam.”

Applicants have reviewed the D'Aligny reference and assert that D'Aligny fails to remedy the deficiencies of Cooreman that are noted above. D'Aligny teaches a single beam, however, D'Aligny fails to teach or suggest the limitation of, "wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam," as is recited in Claim 5. D'Aligny, teaches controlling the single beam to effect scanning of a scene on a horizontal axis or a vertical axis (see e.g. paragraphs 77 and 156 of D'Aligny), however this is very different from "wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam," as is recited in embodiments of the present invention.

Moreover, the rejection suggests that a combination of the disclosure of Cooreman with that of D'Aligny renders obvious the embodiments of the present invention. However, the invention of Cooreman is for tracking a computer input device and the invention of D'Aligny is for recording a three-dimensional scene, and these inventions take different paths to solve different problems. As such, Applicants submit there is no motivation within these teachings to combine the teaching of Cooreman with D'Aligny to achieve the embodiments claimed in the present invention.

As described above, the combination of Cooreman and D'Aligny does not teach, suggest, or motivate the cited limitations of Independent Claim 5. Therefore, it is

respectfully submitted that Independent Claim 5 is patentable over the combination of Cooreman and D'Aligny and is in condition for allowance. Dependent Claims 2-4 and 6-8 are dependent on allowable Independent Claim 5. Hence, it is respectfully submitted that Dependent Claims 2-4 and 6-8 are patentable over the combination of Cooreman and D'Aligny for the reasons discussed above.

Independent Claim 15 recites similar limitations to Claim 5 discussed above. In particular, independent Claim 15 recites the limitation of, "wherein if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam." This cited limitation is not taught, suggested or motivated by the combination of Cooreman and D'Aligny. Therefore, Independent Claim 15 is allowable over the combination of Cooreman and D'Aligny for reasons discussed in connection with Independent Claim 5.

Dependent Claims 10-14 and 16-18 are dependent on allowable Independent Claim 15. Hence, it is respectfully submitted that Dependent Claims 10-14 and 16-18 are patentable over the combination of Cooreman and D'Aligny for the reasons discussed above.

Independent Claim 22 recites similar limitations to Claim 5 discussed above. In particular, independent Claim 22 recites the limitation of, "wherein said sweeping said first light beam step includes: if said target reflects said first light beam when said first light beam is at a particular angular value, sweeping said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam." This cited limitation is not taught, suggested or motivated by the combination of Cooreman and D'Aligny. Therefore, Independent Claim 22 is

allowable over the combination of Cooreman and D'Aligny for reasons discussed in connection with Independent Claim 5.

Dependent Claims 20-21 and 23-25 are dependent on allowable Independent Claim 22. Hence, it is respectfully submitted that Dependent Claims 20-21 and 23-25 are patentable over the combination of Cooreman and D'Aligny for the reasons discussed above.


SUMMARY

In light of the above-listed amendments and remarks, Applicants respectfully request allowance of the pending Claims.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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